International Space Station Noise Constraints Flight Rule Process

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Abstract

Crewmembers onboard the International Space Station (ISS) live in a unique workplace environment for as long as 6-12 months. During these long-duration ISS missions, noise exposures from onboard equipment are posing concerns for human factors and crewmember health risks, such as possible reductions in hearing sensitivity, disruptions of crew sleep, interference with speech intelligibility and voice communications, interference with crew task performance, and reduced alarm audibility. The purpose of this poster is to describe how a recently-updated noise constraints flight rule is being used to implement a NASA-created Noise Exposure Estimation Tool and Noise Hazard Inventory to predict crew noise exposures and recommend when hearing protection devices are needed.

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